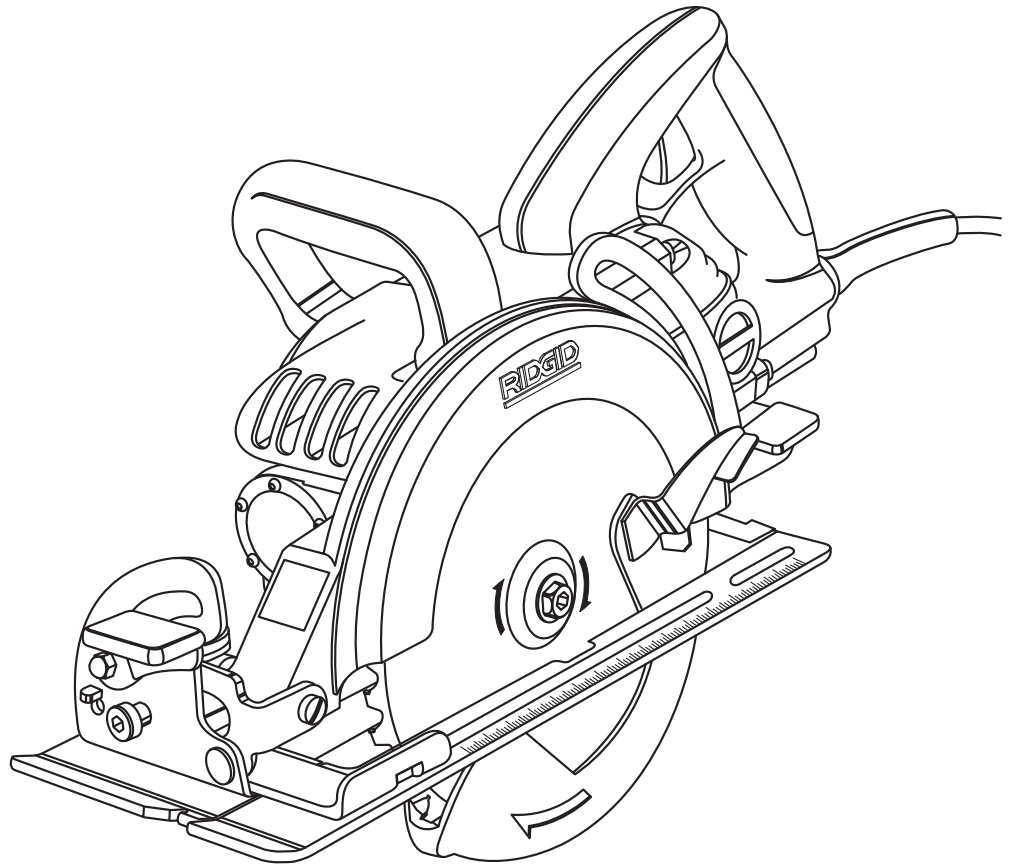


# OPERATOR'S MANUAL

## 7-1/4 in. WORM DRIVE SAW

### DOUBLE INSULATION

### R3210-1



Your saw has been engineered and manufactured to our high standards for dependability, ease of operation, and operator safety. When properly cared for, it will give you years of rugged, trouble-free performance.

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**⚠ WARNING:**  
To reduce the risk of injury, the user must read and understand the operator's manual before using this product.

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Thank you for buying a RIDGID product.

**SAVE THIS MANUAL FOR FUTURE REFERENCE**

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## INTRODUCTION

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This tool has many features for making its use more pleasant and enjoyable. Safety, performance, and dependability have been given top priority in the design of this product making it easy to maintain and operate.

# GENERAL SAFETY RULES

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## **⚠ WARNING:**

**Read and understand all instructions.** Failure to follow all instructions listed below, may result in electric shock, fire and/or serious personal injury.


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## SAVE THESE INSTRUCTIONS

### WORK AREA

- **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
- **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
- **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control.

### ELECTRICAL SAFETY

- **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation  eliminates the need for the three-wire grounded power cord and grounded power supply system.
- **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
- **Don't expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges, or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
- **When operating a power tool outside, use an outdoor extension cord marked "W-A" or "W".** These cords are rated for outdoor use and reduce the risk of electric shock.

### PERSONAL SAFETY

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.

- **Avoid accidental starting. Be sure switch is off before plugging in.** Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.
- **Remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.
- **Use safety equipment. Always wear eye protection.** Dust mask, nonskid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.
- **Do not wear loose clothing or jewelry. Contain long hair.** Loose clothes, jewelry, or long hair can be drawn into air vents.
- **Do not use on a ladder or unstable support.** Stable footing on a solid surface enables better control of the tool in unexpected situations.

### TOOL USE AND CARE

- **Use clamps or other practical way to secure and support the workpiece to a stable platform.** Holding the work by hand or against your body is unstable and may lead to loss of control.
- **Do not force tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
- **Do not use tool if switch does not turn it on or off.** Any tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
- **Store idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
- **Maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control.
- **Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
- **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool, may become hazardous when used on another tool.
- **Keep the tool and its handle dry, clean and free from oil and grease.** Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any strong solvents to clean your tool. Following this rule will reduce the risk of loss of control and deterioration of the enclosure plastic.

# GENERAL SAFETY RULES

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## SERVICE

- **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel may result in a risk of injury.

## SPECIFIC SAFETY RULES

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- **DANGER! Keep hands away from cutting area and blade. Keep your second hand on the auxiliary handle, or motor housing.** If both hands are holding the saw, they cannot be cut by the blade.
- **Keep your body positioned to either side of the saw blade, but not in line with the saw blade.** Kickback could cause the saw to jump backwards. (See “Causes and Operator Prevention of Kickback.”)
- **Do not reach underneath the work.** The guard can not protect you from the blade below the work.
- **Check lower guard for proper closing before each use. Do not operate saw if lower guard does not move freely and close instantly. Never clamp or tie the lower guard into the open position.** If saw is accidentally dropped, lower guard may be bent. Raise the lower guard with the Retracting Handle and make sure it moves freely and does not touch the blade or any other part, in all angles and depths of cut.
- **Check the operation and condition of the lower guard spring. If the guard and the spring are not operating properly, they must be serviced before use.** Lower guard may operate sluggishly due to damaged parts, gummy deposits, or a buildup of debris.
- **Lower guard should be retracted manually only for special cuts, such as “Pocket Cuts” and “Compound Cuts.”** Raise lower guard by retracting handle. As soon as blade enters the material, lower guard must be released. For all other sawing, the lower guard should operate automatically.
- **Always observe that the lower guard is covering the blade before placing saw down on bench or floor.** An unprotected, coasting blade will cause the saw to walk backwards, cutting whatever is in its path. Be aware of the time it takes for the blade to stop after switch is released.
- **NEVER hold piece being cut in your hands or across your leg.** It is important to support the work properly to minimize body exposure, blade binding, or loss of control.
- **Hold tool by insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord.** Contact with a “live” wire will also make exposed metal parts of the tool “live” and shock the operator.
- **When ripping always use a rip fence or straight edge guide.** This improves the accuracy of the cut and reduces the chance for blade binding.

- **When servicing a tool, use only identical replacement parts. Follow instructions in the Maintenance section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of shock or injury.

- **Always use blades with correct size and shape (diamond vs. round) arbor holes.** Blades that do not match the mounting hardware of the saw will run eccentrically, causing loss of control.
- **Never use damaged or incorrect blade washers or bolts.** The blade washers and bolts were specially designed for the saw for optimum performance and safety of operation.

## CAUSES AND OPERATOR PREVENTION OF KICKBACK

Kickback is a sudden reaction to a pinched, bound, or misaligned saw blade, causing an uncontrolled saw to lift up and out of the workpiece toward the operator.

When the blade is pinched or bound tightly by the kerf closing down, the blade stalls and the motor reaction drives the unit rapidly back toward the operator.

If the blade becomes twisted or misaligned in the cut, the teeth at the back edge of the blade can dig into the top surface of the wood causing the blade to climb out of the kerf and jump back toward the operator.

Kickback is the result of tool misuse and/or incorrect operating procedures or conditions and can be avoided by taking proper precautions, as given below:

- **Maintain a firm grip with both hands on the saw and position your body and arm to allow you to resist KICKBACK forces.** KICKBACK forces can be controlled by the operator, if proper precautions are taken.
- **When blade is binding, or when interrupting a cut for any reason, release the trigger and hold the saw motionless in the material until the blade comes to a complete stop. Never attempt to remove the saw from the work or pull the saw backward while the blade is in motion, or KICKBACK may occur.** Investigate and take corrective actions to eliminate the cause of blade binding.
- **When restarting a saw in the workpiece, center the saw blade in the kerf and check that saw teeth are not engaged into the material.** If saw blade is binding, it may walk up or KICKBACK from the workpiece as the saw is restarted.
- **Support large panels to minimize the risk of blade pinching and KICKBACK.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.

# SPECIFIC SAFETY RULES

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- **Do not use dull or damaged blade.** Unsharpened or improperly set blades produce narrow kerf causing excessive friction, blade binding and KICKBACK.
- **Blade depth and bevel adjusting locking levers must be tight and secure before making cut.** If blade adjustment shifts while cutting, it may cause binding and KICKBACK.
- **Use extra caution when making a “Pocket Cut” into existing walls or other blind areas.** The protruding blade may cut objects that can cause KICKBACK.

## ADDITIONAL SAFETY RULES

- **Inspect tool cords periodically and, if damaged, have repaired at your nearest Authorized Service Center. Constantly stay aware of cord location.** Following this rule will reduce the risk of electric shock or fire.
- **Check damaged parts. Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center.** Following this rule will reduce the risk of shock, fire, or serious injury.

- **Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. A wire gage size (A.W.G.) of at least 12 is recommended for an extension cord 50 feet or less in length. A cord exceeding 50 feet is not recommended. If in doubt, use the next heavier gage. The smaller the gage number, the heavier the cord.** An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.
- **Inspect for and remove all nails from lumber before using this tool.** Following this rule will reduce the risk of serious personal injury.
- **Drugs, alcohol, medication. Do not operate tool while under the influence of drugs, alcohol, or any medication.** Following this rule will reduce the risk of electric shock, fire, or serious personal injury.
- **If the power supply cord is damaged,** it must be replaced only by the manufacturer or by an authorized service center to avoid risk.
- **Save these instructions.** Refer to them frequently and use them to instruct others who may use this tool. If you loan someone this tool, loan them these instructions also.

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## WARNING:

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:










- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

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# SYMBOLS

Some of the following symbols may be used on this tool. Please study them and learn their meaning. Proper interpretation of these symbols will allow you to operate the tool better and safer.

SYMBOL	NAME	DESIGNATION/EXPLANATION
V	Volts	Voltage
A	Amperes	Current
Hz	Hertz	Frequency (cycles per second)
W	Watt	Power
min	Minutes	Time
~	Alternating Current	Type of current
==	Direct Current	Type or a characteristic of current
$n_0$	No Load Speed	Rotational speed, at no load
	Class II Construction	Double-insulated construction
.../min	Per Minute	Revolutions, strokes, surface speed, orbits etc., per minute
	Wet Conditions Alert	Do not expose to rain or use in damp locations.
	Read The Operator's Manual	To reduce the risk of injury, user must read and understand operator's manual before using this product.
	Eye Protection	Always wear safety goggles or safety glasses with side shields and, as necessary, a full face shield when operating this product.
	Safety Alert	Precautions that involve your safety.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.
	No Hands Symbol	Failure to keep your hands away from the blade will result in serious personal injury.

# SYMBOLS

The following signal words and meanings are intended to explain the levels of risk associated with this product.

SYMBOL	SIGNAL	MEANING
	<b>DANGER:</b>	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
	<b>WARNING:</b>	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
	<b>CAUTION:</b>	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.
	<b>CAUTION:</b>	(Without Safety Alert Symbol) Indicates a situation that may result in property damage.

## SERVICE

Servicing requires extreme care and knowledge and should be performed only by a qualified service technician. For service we suggest you return the product to your nearest **AUTHORIZED SERVICE CENTER** for repair. When servicing, use only identical replacement parts.



### WARNING:

To avoid serious personal injury, do not attempt to use this product until you read thoroughly and understand completely the operator's manual. If you do not understand the warnings and instructions in the operator's manual, do not use this product. Call RIDGID customer service for assistance.

### WARNING:



The operation of any power tool can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, always wear safety goggles or safety glasses with side shields and, when needed, a full face shield. We recommend Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shields. Always use eye protection which is marked to comply with ANSI Z87.1.

## SAVE THESE INSTRUCTIONS

# ELECTRICAL

## DOUBLE INSULATION

Double insulation is a concept in safety in electric power tools, which eliminates the need for the usual three-wire grounded power cord. All exposed metal parts are isolated from the internal metal motor components with protecting insulation. Double insulated tools do not need to be grounded.

### **WARNING:**

The double insulated system is intended to protect the user from shock resulting from a break in the tool's internal wiring. Observe all normal safety precautions to avoid electrical shock.

Servicing of a tool with double insulation requires extreme care and knowledge of the system and should be performed only by a qualified service technician. For service, we suggest you return the tool to your nearest authorized service center for repair. Always use original factory replacement parts when servicing.

## ELECTRICAL CONNECTION

This tool has a precision-built electric motor. It should be connected to a **power supply that is 120 volts, 60 Hz, AC only (normal household current)**. Do not operate this tool on direct current (DC). A substantial voltage drop will cause a loss of power and the motor will overheat. If your tool does not operate when plugged into an outlet, double-check the power supply.

## EXTENSION CORDS

When using a power tool at a considerable distance from a power source, be sure to use an extension cord that has the capacity to handle the current the tool will draw. An undersized cord will cause a drop in line voltage, resulting in overheating and loss of power. Use the chart to determine the minimum wire size required in an extension cord. Only round jacketed cords listed by Underwriter's Laboratories (UL) should be used.

When working outdoors with a tool, use an extension cord that is designed for outside use. This type of cord is designated with "WA" on the cord's jacket.

Before using any extension cord, inspect it for loose or exposed wires and cut or worn insulation.

\*\*Ampere rating (on tool faceplate)

Cord Length	Wire Size (A.W.G.)					
	0-2.0	2.1-3.4	3.5-5.0	5.1-7.0	7.1-12.0	12.1-16.0
25'	16	16	16	16	14	14
50'	16	16	16	14	14	12
100'	16	16	14	12	10	—

\*\*Used on 12 gauge - 20 amp circuit.

### **WARNING:**

Keep the extension cord clear of the working area. Position the cord so that it will not get caught on lumber, tools or other obstructions while you are working with a power tool. Failure to do so can result in serious personal injury.

### **WARNING:**

Check extension cords before each use. If damaged replace immediately. Never use tool with a damaged cord since touching the damaged area could cause electrical shock resulting in serious injury.



# FEATURES

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## SPECIFICATIONS

Blade Diameter.....	7-1/4 in. (184 mm)
Blade Arbor .....	Diamond (Bolt-LH Combo)
Cutting Depth at 90°.....	2-3/8 in. (60.3 mm)
Cutting Depth at 45°.....	1-3/4 in. (44.5 mm)
Cutting Depth at 51.5°.....	1-9/16 in. (39.7 mm)
Input .....	120 Volts, 60 Hz, AC only, 15 Amps
No Load Speed .....	4400 r/min. (RPM)
Net Weight.....	15.0 lbs. (6.8 kg)

## KNOW YOUR WORM DRIVE SAW

See Figures 1 and 1a.

The safe use of this product requires an understanding of the information on the tool and in this operator's manual as well as a knowledge of the project you are attempting. Before use of this product, familiarize yourself with all operating features and safety rules.

### SKYHOOK™ SAW HANGER

This feature allows the saw to hang on any framing material.

### 51.5° BEVEL BRACKET

The bevel bracket provides more flexibility while cutting.

### 24 TOOTH CARBIDE BLADE

The high-quality carbide blade helps to create smooth cuts.

### HIGH STRENGTH ALUMINUM BASE

The strength of the aluminum base enhances durability.

### OVERSIZED LEVERS

This feature makes it more convenient for the operator to adjust depth and bevel settings.

### SWITCH TRIGGER

The saw has a conveniently-located ON/OFF switch trigger.

### LENGTH OF CUT SCALE

The saw is equipped with a length of cut scale on its base. The operator can use it to measure the distance the blade cuts into the material.

## SPINDLE LOCK

The spindle lock allows you to secure the blade when turning the blade screw.

**NOTE:** Do not run the saw with the spindle lock engaged.

## SHOCK ABSORBING REAR HANDLE

The soft grip handle is designed for durability and operator comfort.

## FULL LENGTH KERF INDICATOR

Indicates blade position for more accurate cutting.

## ERGONOMIC DESIGN

The design provides for easy handling. It is designed for comfort and ease of grasp when operating in different positions and at different angles.

## POWER CORD

The 12-foot cord has a built-in cord wrap.

## LIGHTED PLUG

The lighted plug helps to easily identify live tools.

## DIPSTICK

A dipstick is provided for checking the oil level and correctly refilling the saw with oil.

## DIPSTICK AND WRENCH STORAGE

A convenient storage area for the dipstick and the wrench is located on the underside of the rear handle of the tool.

# FEATURES

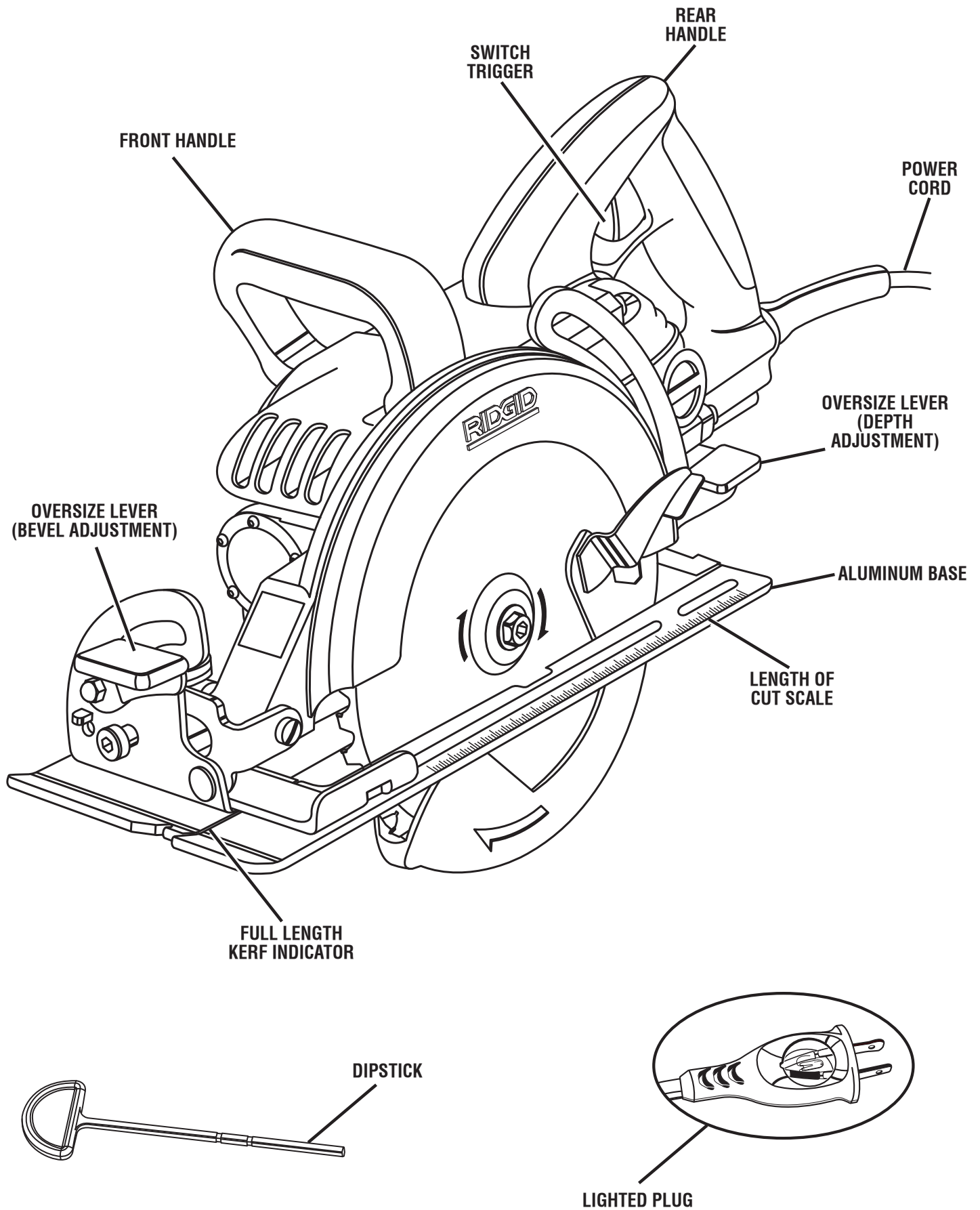


Fig. 1

# FEATURES

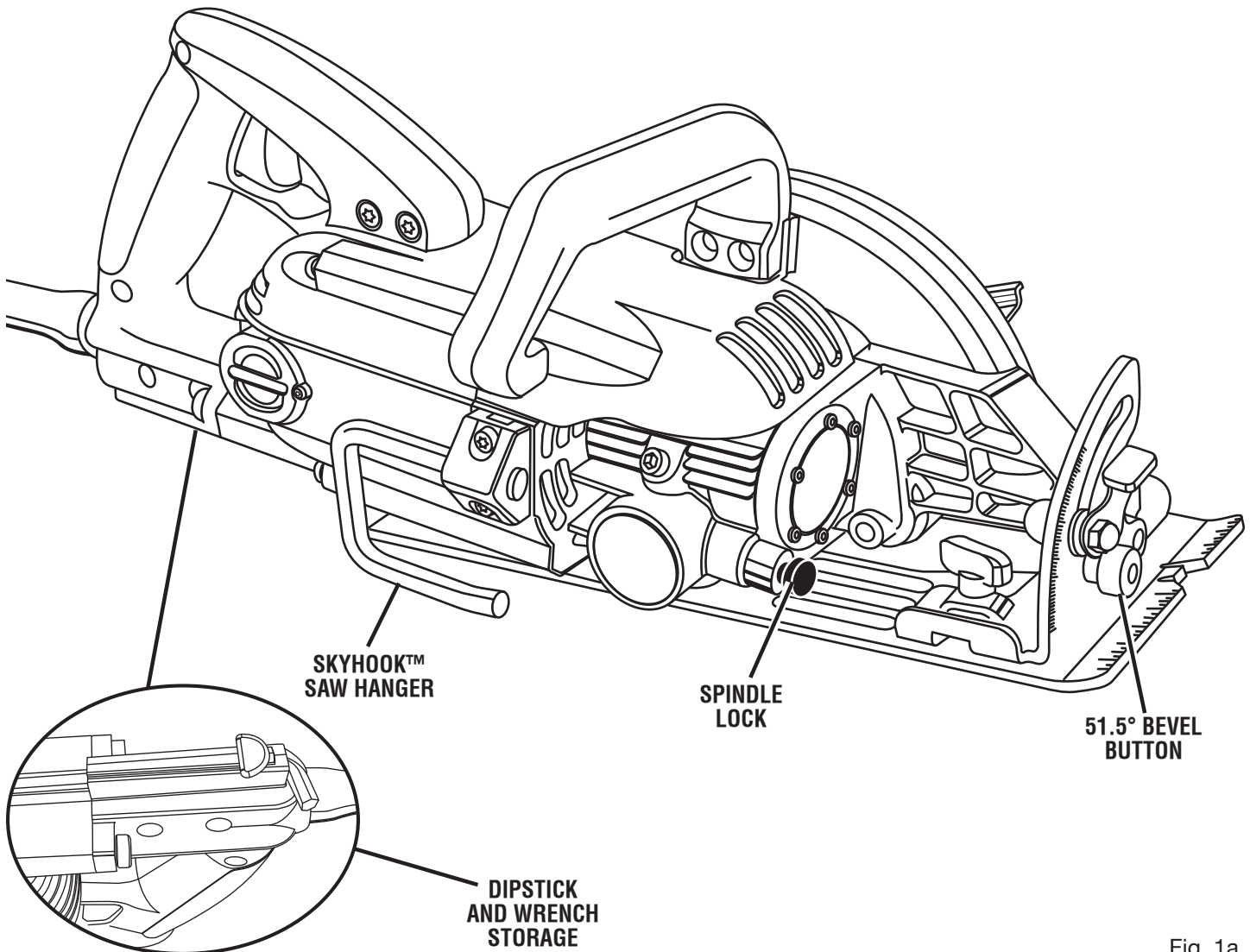


Fig. 1a

## UNPACKING

### INSTRUCTIONS:

When unpacking the tool:

- Carefully remove the tool and accessories from the box. Make sure that all items listed in the packing list are included.
- Inspect the tool carefully to make sure no breakage or damage occurred during shipping.
- Do not discard the packing material until you have carefully inspected and satisfactorily operated the tool.
- If any parts are damaged or missing, please call 1-866-539-1710 for assistance.

### PACKING LIST

7-1/4 in. (184 mm) Worm Drive Saw  
24-Tooth Carbide Tipped Blade  
Hex Wrench  
Dipstick  
Operator's Manual

### ⚠ WARNING:

If any parts are missing do not operate the tool until the missing parts are replaced. Failure to do so could result in possible serious personal injury.

# ASSEMBLY

## ⚠ WARNING:

Do not connect the tool to a power supply until all assembly is complete. Failure to comply could result in accidental starting and possible serious injury.

## ⚠ WARNING:

7-1/4 in. (184 mm) blade is the maximum blade capacity of the saw. Also, never use a blade that is too thick to allow outer flange washer to engage with the flat on the spindle. Larger blades will come in contact with the blade guards, while thicker blades will prevent blade screw from securing blade on spindle. Either of these situations could result in a serious accident.

## ATTACHING BLADE

See Figures 2 and 2a.

- Unplug the saw.

## CAUTION:

To prevent damage to the spindle or spindle lock, always allow motor to come to a complete stop before engaging spindle lock.

- Depress the spindle lock button.
- Remove the blade screw by turning it clockwise with the wrench, while keeping the lock button depressed.
- Remove the spring washer and outer flange washer.
- Wipe a drop of oil onto the inner flange bushing and outer flange washer where they contact the blade.

## ⚠ WARNING:

If inner flange bushing has been removed, replace it before placing blade on spindle. Failure to do so could cause an accident since blade will not tighten properly.

- Retract the lower guard into the upper guard, making sure the lower guard spring works properly, allowing the guard to move freely.
- Check to see that the saw teeth and arrow on the saw blade and the arrow on the lower guard are pointing in the same direction.

**NOTE:** The saw teeth point upward at the front of the saw as shown.

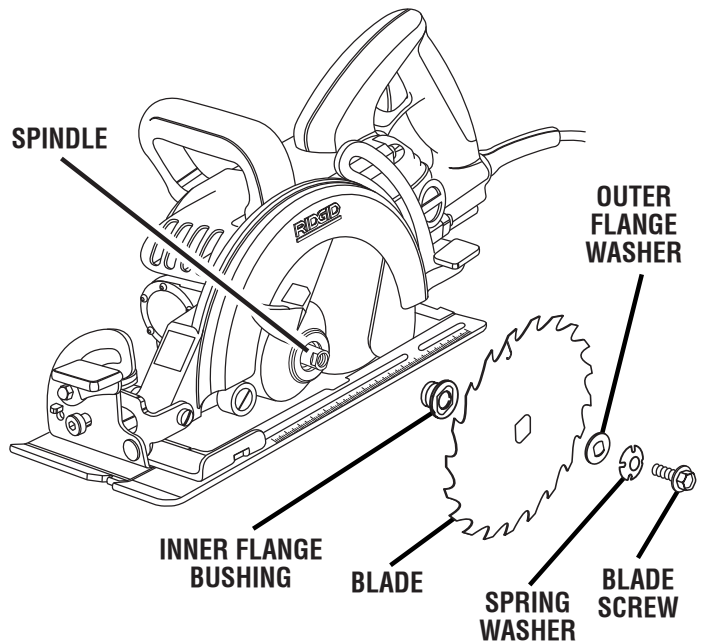


Fig. 2

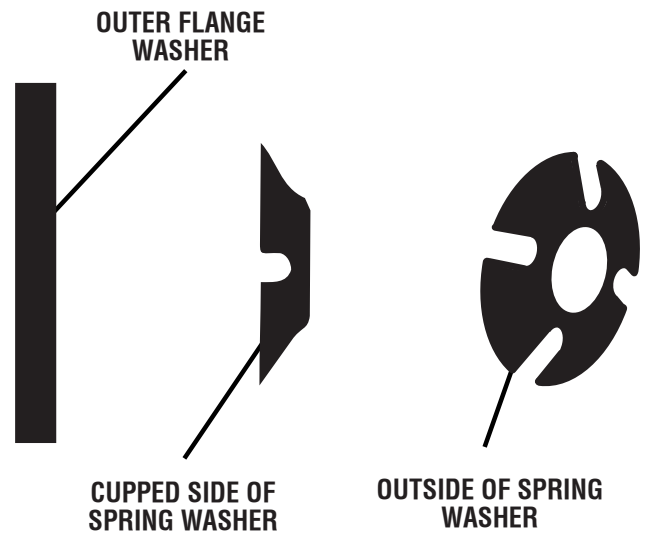


Fig. 2a

- Fit the saw blade inside the lower blade guard and onto the spindle.

**NOTE:** Be sure that the diamond key on the inner flange bushing aligns properly with the blade before tightening the blade screw.

- Replace outer flange washer.
- Replace spring washer.
- Depress the spindle lock and replace the blade screw.
- Tighten the blade screw securely by turning it counter-clockwise with the wrench. Do not over tighten.

**NOTE:** Never use a blade that is too thick to allow the outer flange washer to engage with the flat on the spindle.

# ASSEMBLY

## REMOVING BLADE

See Figure 3.

- Unplug the saw.

### CAUTION:

To prevent damage to the spindle or spindle lock, always allow motor to come to a complete stop before engaging spindle lock.

- Depress spindle lock button.
- Remove blade screw by turning it clockwise with the hex wrench.
- Remove spring washer.
- Remove outer flange washer.
- Lift lower blade guard.
- Remove blade.

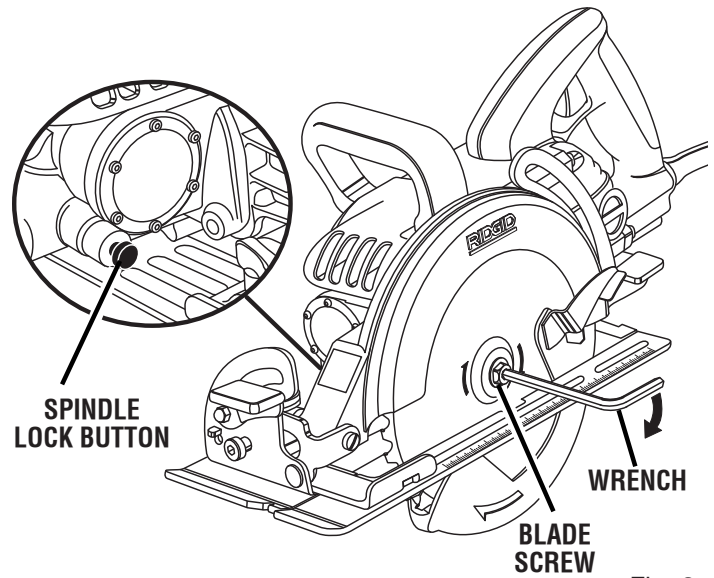


Fig. 3

# OPERATION

## ⚠ WARNING:

Do not allow familiarity with the tool to make you careless. Remember that a careless fraction of a second is sufficient to inflict severe injury.

## APPLICATIONS

You may use this saw for the following purposes:

- Cutting all types of wood products (lumber, plywood, paneling)

**NOTE:** The use of abrasive cut-off wheels is not recommended for this saw.

## ⚠ WARNING:

The use of this saw on materials not listed may damage the saw and its guards, and may cause serious personal injury.

## ⚠ WARNING:

Always wear safety goggles or safety glasses with side shields when operating tools. Failure to do so could result in objects being thrown into your eyes, resulting in possible serious injury.

## SAW BLADES

The best of saw blades will not cut efficiently if they are not kept clean, sharp, and properly set. Using a dull blade will place a heavy load on the saw and increase the danger of kickback. Keep extra blades on hand, so that sharp blades are always available.

Gum and wood pitch hardened on blades will slow the saw down. Remove saw blade from the saw and use gum and pitch remover, hot water, or kerosene to remove these accumulations. **DO NOT USE GASOLINE.**

## BLADE GUARD SYSTEM

See Figure 4.

The lower blade guard attached to your saw is there for your protection and safety. Do not alter it for any reason. If it becomes damaged, do not operate the saw until you have the guard repaired or replaced. Always leave guard in operating position when using the saw.

## ⚠ DANGER:

When sawing through work, lower blade guard does not cover blade on the underside of work. Since blade is exposed on underside of work, keep hands and fingers away from cutting area. Any part of your body coming in contact with moving blade will result in serious injury.

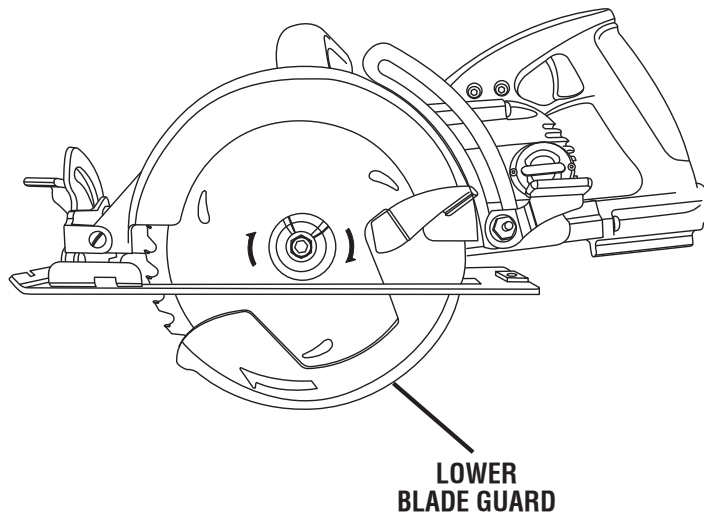


Fig. 4

## ⚠ WARNING:

To avoid possible serious injury, never use saw when guard is not operating correctly. Check the guard for correct operation before each use. The guard is operating correctly when it moves freely, and instantly returns to the closed position. If you drop the saw, check the lower blade guard and bumper for damage at all depth settings before reuse.

If at any time the lower blade guard does not snap closed, unplug the saw from the power supply. Exercise the lower guard by moving it rapidly back and forth from the full open position to the closed position several times. Normally this will restore the guard to its normal operating condition. If it does not correct a slow or sluggish closing lower guard, do not use the saw. Take it to an authorized factory service center for repair.

# OPERATION

## KICKBACK

See Figures 5, 6, 7, and 8.

Kickback occurs when the blade stalls rapidly and the saw is driven back towards you. Blade stalling is caused by any action which pinches the blade in the wood. See Figure 5.

### **⚠ DANGER:**

Release switch immediately if blade binds or saw stalls. Kickback could cause you to lose control of the saw. Loss of control can lead to serious injury.

To guard against kickback, avoid dangerous practices such as the following.

- Setting blade depth incorrectly.
- Sawing into knots or nails in workpiece.
- Twisting the blade while making a cut.
- Making a cut with a dull, gummed up, or improperly set blade.
- Supporting the workpiece incorrectly.
- Forcing a cut.
- Cutting warped or wet lumber.
- Operating the tool incorrectly or misusing the tool.

To lessen the chance of kickback, follow these safety practices.

- Do not cut warped or wet lumber.
- Keep the blade at the correct depth setting. The depth setting should not exceed 1/4 in. below the material being cut.
- Inspect the workpiece for knots or nails before cutting. Never saw into a knot or nail.
- Make straight cuts. Always use a straight edge guide when rip cutting. This helps prevent twisting the blade.
- Use clean, sharp, and properly set blades. Never make cuts with dull blades.
- Support the workpiece properly before beginning a cut.
- Use steady, even pressure when making a cut. Never force a cut.
- Hold the saw firmly with both hands and keep your body in a balanced position so as to resist the forces if kickback should occur.

### **⚠ WARNING:**

When using the saw, always stay alert and exercise control. Do not remove the saw from the workpiece while the blade is moving.

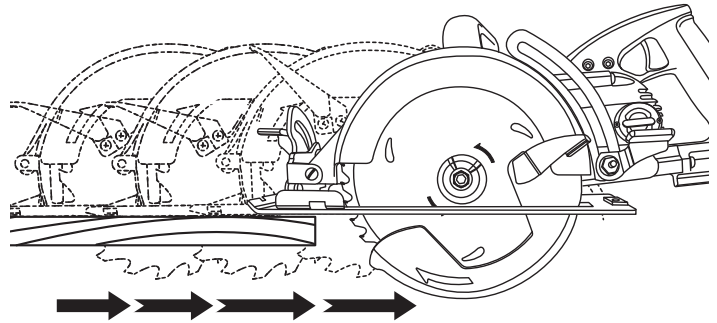


Fig. 5

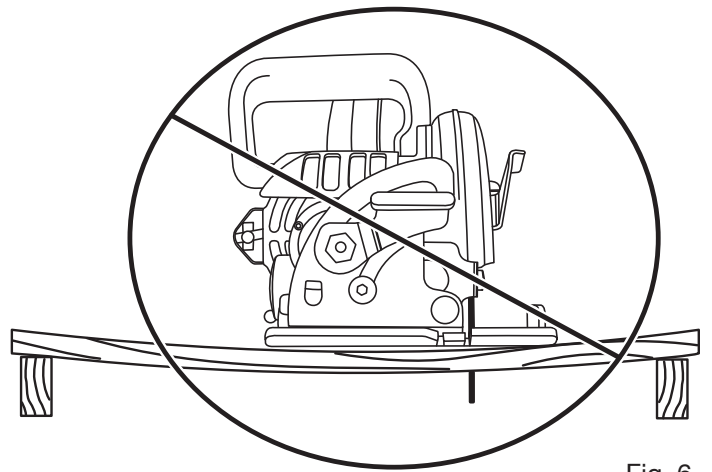


Fig. 6

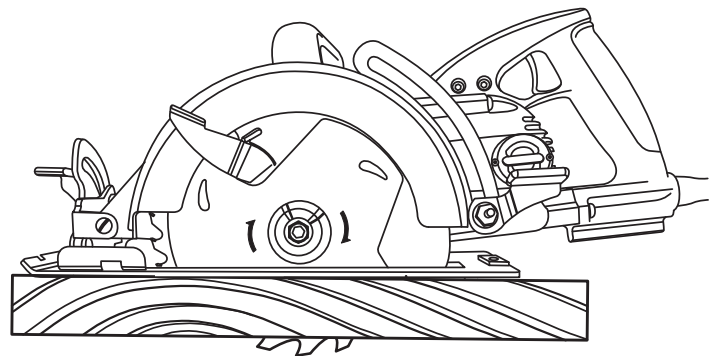


Fig. 7

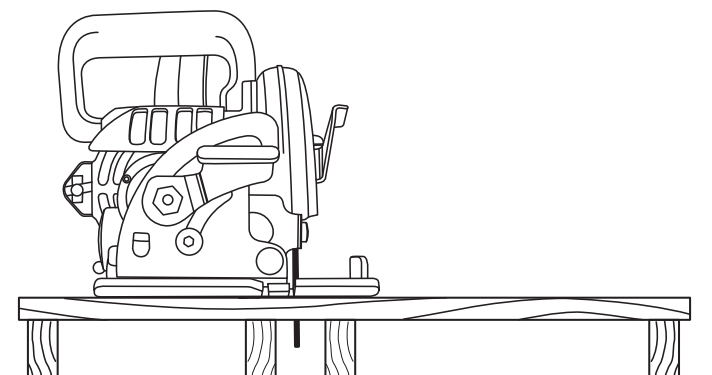


Fig. 8

# OPERATION

## STARTING/STOPPING THE SAW

See Figure 9.

To start the saw: Depress the switch trigger.

Always let the blade reach full speed, then guide the saw into the workpiece.

### **⚠ WARNING:**

The blade coming in contact with the workpiece before it reaches full speed could cause the saw to “kickback” towards you resulting in serious injury.

To stop the saw: Release the switch trigger.

After you release the switch trigger, allow the blade to come to a complete stop. Do not remove the saw from the workpiece while the blade is moving.

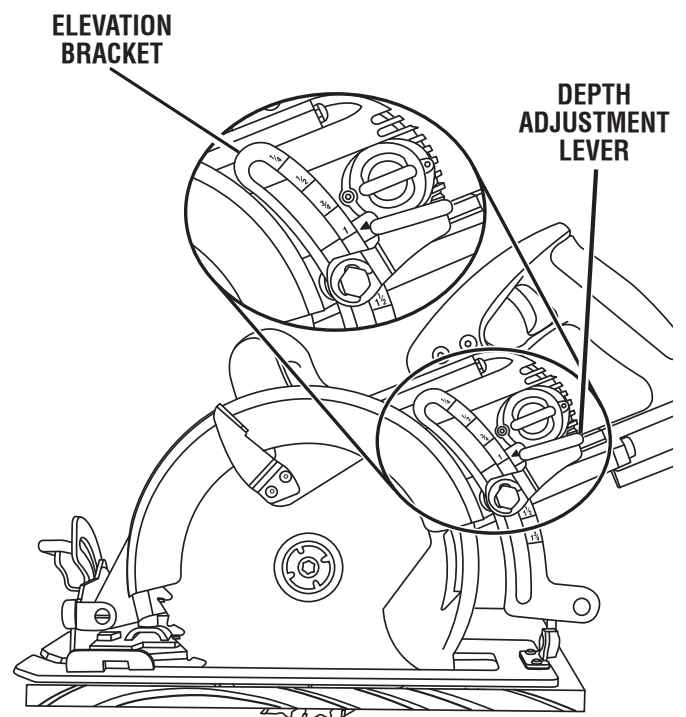
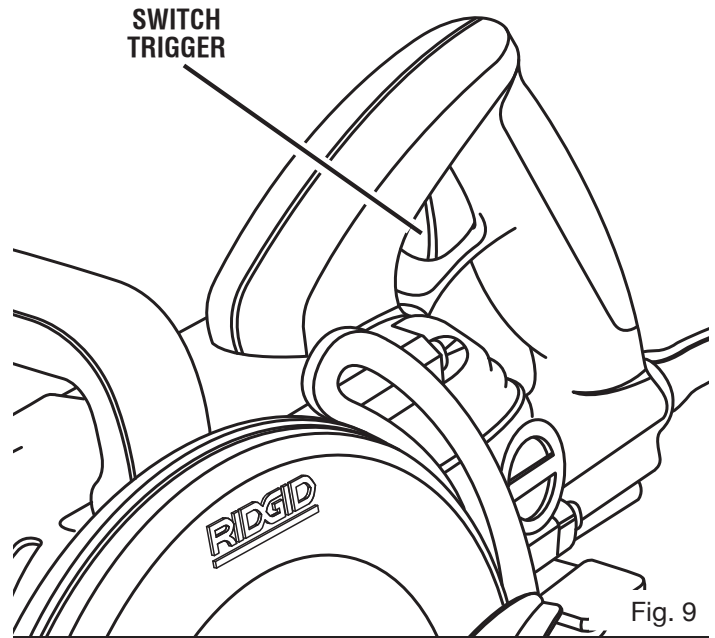
## ADJUSTING BLADE DEPTH

See Figure 10.

Always keep correct blade depth setting. The correct blade depth setting for all cuts should not exceed 1/4 in. below the material being cut. More blade depth will increase the chance of kickback and cause the cut to be rough. For more depth of cut accuracy, a scale is located on the elevation bracket.

**NOTE:** The marks on the scale refer to the actual depth of cut (blade exposure).

- Unplug the saw.
- Pull depth adjustment lever upward to release. The depth adjustment lever is located between the guard and handle of the saw.
- Determine the desired depth of cut.
- To select the depth of cut, hold base flat against the workpiece. Raise or lower saw to align the desired measurement on the scale with the lock washer indicator located directly above the lock mechanism.
- Push down on the depth adjustment lever to lock the lever in place and secure the position.





# OPERATION

## OPERATING THE SAW

See Figures 11, 12, and 13.

It is important to understand the correct method for operating the saw. Refer to the figures in this section to learn the correct and incorrect ways for handling the saw.

### **⚠ WARNING:**

To make sawing easier and safer, always maintain proper control of the saw. Loss of control could cause an accident resulting in possible serious injury.

### **⚠ DANGER:**

When lifting the saw from the workpiece, the blade is exposed on the underside of the saw until the lower blade guard closes. Make sure the lower blade guard is closed before setting the saw down.

To make the best possible cut, follow these helpful hints.

- Hold the saw firmly with both hands.
- Avoid placing your hand on the workpiece while making a cut.
- Support the workpiece so that the cut is always on your right.
- Support the workpiece near the cut.
- Clamp the workpiece securely so that the workpiece will not move during the cut.
- Avoid placing the saw on the part of the workpiece that will fall off when the cut is made.
- Place the workpiece with the “good” side down.
- Draw a guideline along the desired line of cut before beginning the cut.
- Keep the cord away from the cutting area. Always place the cord to prevent it from hanging up on the workpiece while making a cut.

### **⚠ DANGER:**

If the cord hangs up on the workpiece during a cut, release the switch trigger immediately. Unplug the saw and reposition the cord to prevent it from hanging up again.

### **⚠ DANGER:**

Using a saw with a damaged cord could result in serious injury or death. If the cord has been damaged, have it replaced before using the saw again.

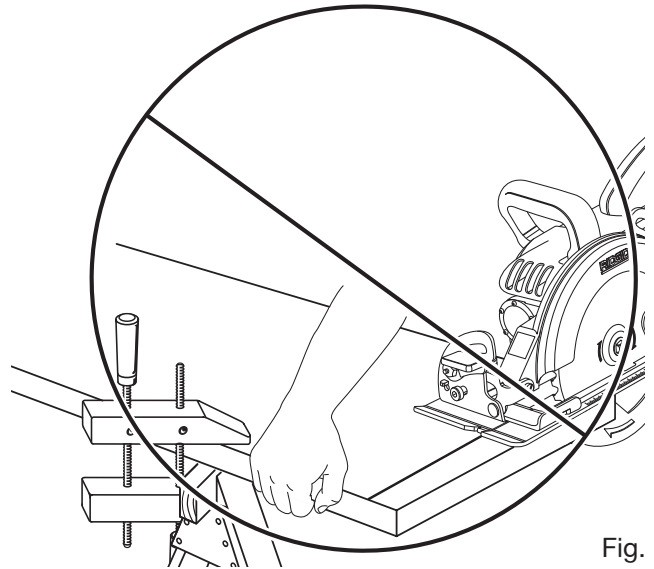


Fig. 11

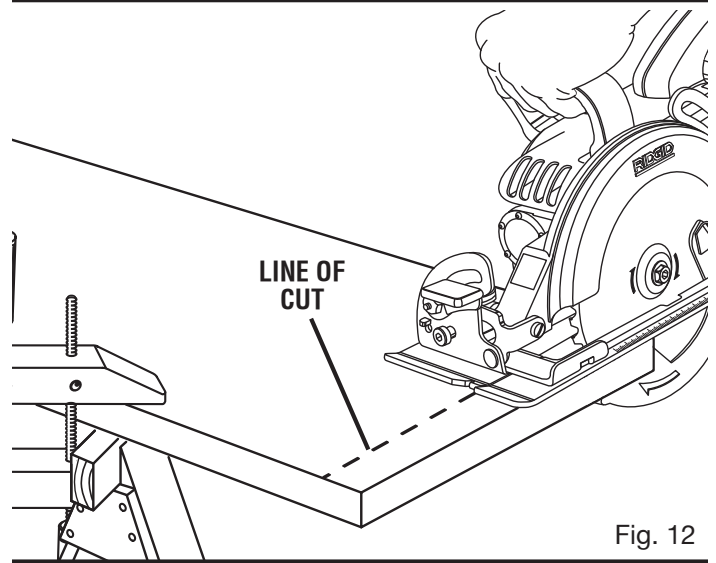


Fig. 12

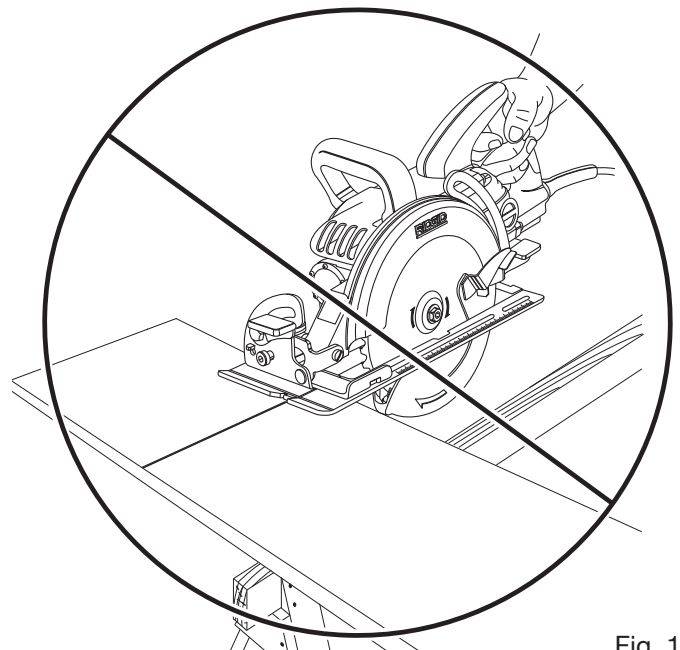


Fig. 13

# OPERATION

## CROSS CUTTING

See Figure 14.

When making a cross cut, align the line of cut with the full length kerf indicator on the base.

Since blade thicknesses vary, always make a trial cut in scrap material along a guideline to determine how much, if any, you must offset the guideline to produce an accurate cut.

**NOTE:** The distance from the line of cut to the guideline is the amount you should offset the guide.

## BEVEL CUTTING

The base of the saw may be adjusted for bevel cuts up to 51.5°.

### **⚠ WARNING:**

The tool should never be connected to a power supply when you are assembling parts, making adjustments, cleaning, performing maintenance, or when the tool is not in use. Disconnecting the tool will prevent accidental starting that could cause serious injury.

## 0° BEVEL STOP

The saw has a positive 0° bevel stop that has been factory adjusted to assure 0° angle of the saw blade when making 90° cuts.

## TO CHECK 0° BEVEL STOP

See Figure 15.

- Unplug the saw.
- Place the saw in an upside down position on a work-bench.
- Move the lower blade guard out of the way so that the saw blade is exposed.
- Check the squareness of the saw blade to the base of the saw using a carpenter's square.

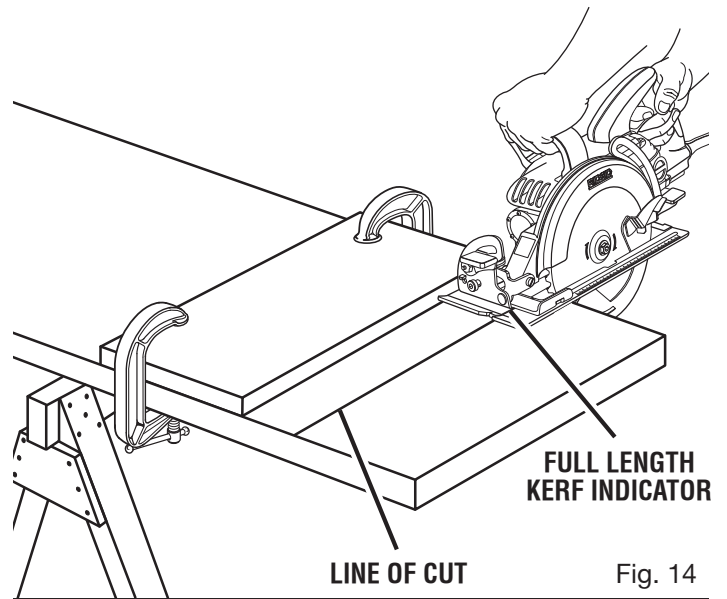


Fig. 14

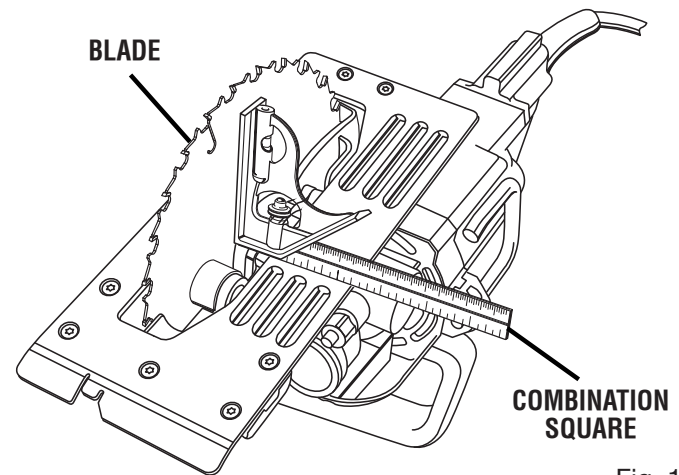


Fig. 15

# OPERATION

## TO ADJUST 0° BEVEL STOP

See Figures 16 and 17.

- Unplug the saw.
- Pull bevel adjustment lever upward to release.
- Turn set screw with hex wrench and adjust base until it is square with the saw blade.
- Securely lock the bevel adjustment lever.

## TO ADJUST BEVEL SETTING

See Figure 16.

- Unplug the saw.
- Pull the bevel adjustment lever upward until the motor housing moves freely.
- Raise the motor housing end of the saw until you reach the desired angle setting on the bevel scale (0-45°).

**NOTE:** Pull the adjustment lever all the way up to set the angle at 51.5°. To reach the 51.5° bevel setting, push the 51.5° bevel button.

- Press downward on the bevel adjustment lever until the motor housing is securely locked in place.

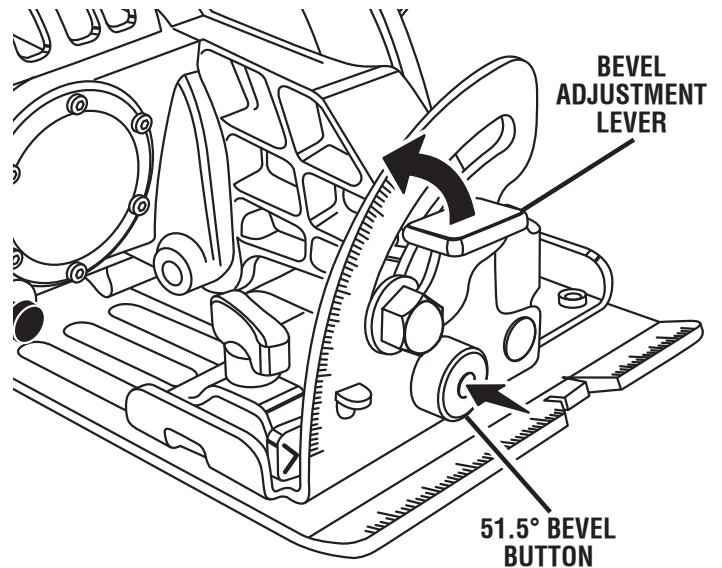


Fig. 16

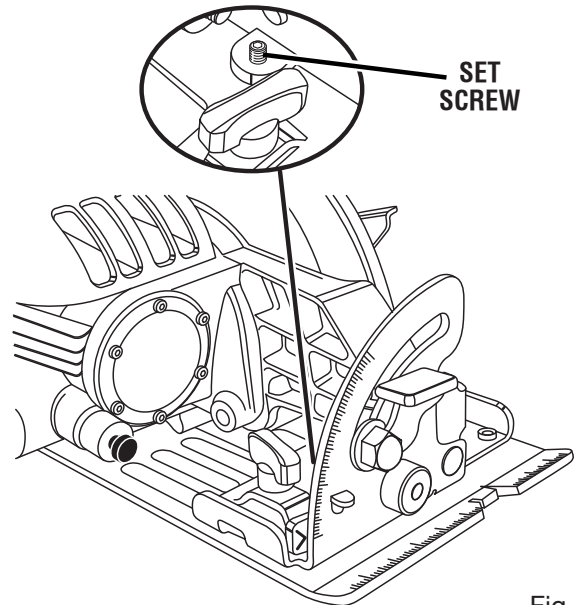


Fig. 17

# OPERATION

## TO BEVEL CUT

See Figure 18.

### ⚠ WARNING:

Attempting a bevel cut without having the bevel adjustment lever securely locked in place can result in serious injury.

- Hold the saw firmly with both hands as shown.
- Rest the front edge of the base on the workpiece.
- Start the saw and let the blade reach full speed.
- Guide the saw into the workpiece and make the cut.
- Release the trigger and allow the blade to come to a complete stop.
- Lift the saw from the workpiece.

The notch marked 0° in the base may be used as a guide for making straight 90° cuts. For 45° bevel cuts, the notch marked 45° may be used as a guide.

## POCKET CUTTING

See Figure 19.

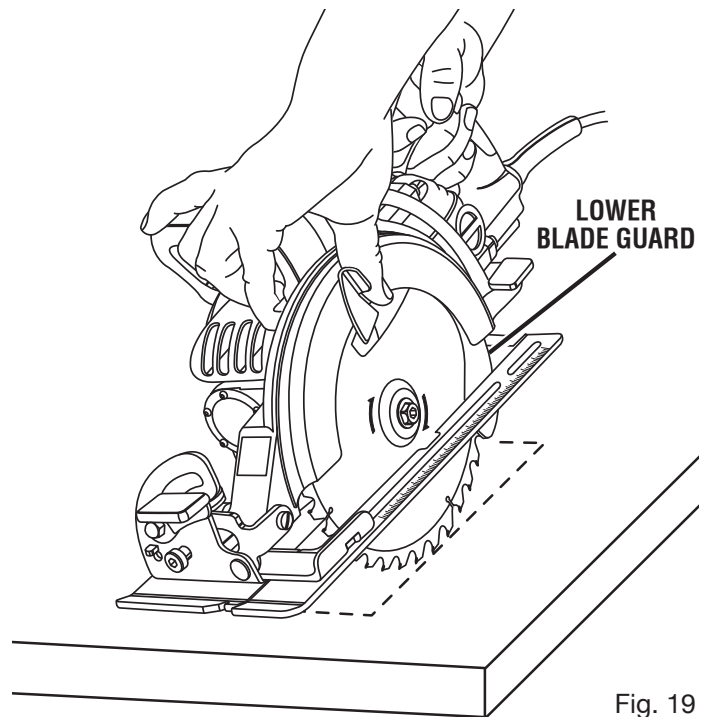
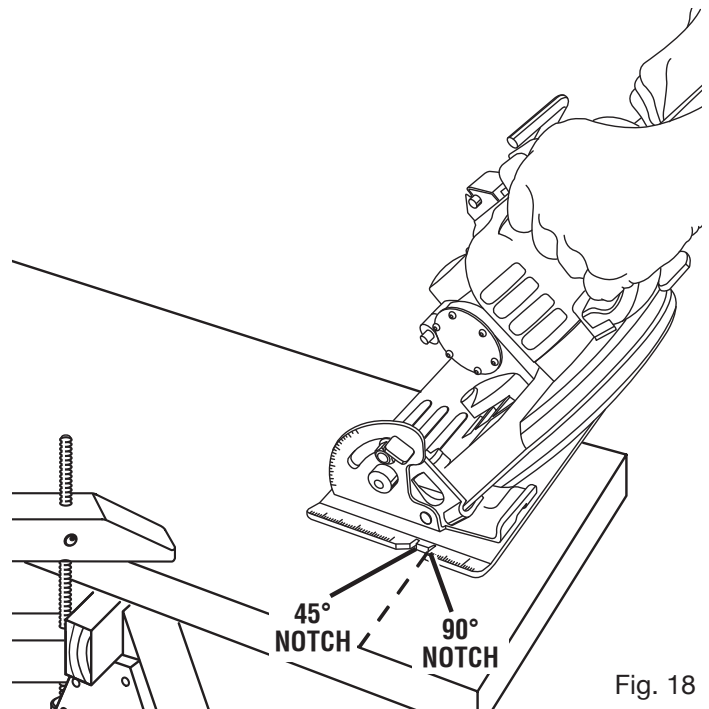
### ⚠ WARNING:

Always adjust bevel setting to zero before making a pocket cut. Attempting a pocket cut at any other setting can result in loss of control of the saw possibly causing serious injury.

- Adjust the bevel setting to zero.
- Set the blade to the correct blade depth setting, depending on the material to be cut.
- Swing the lower blade guard up using the lower blade guard handle.  
**NOTE:** Always raise the lower blade guard with the handle to avoid serious injury.
- Hold the lower blade guard by the handle.
- Rest the front of the base flat against the workpiece with the rear of the handle raised so the blade does not touch the workpiece.
- Start the saw and let the blade reach full speed.
- Guide the saw into the workpiece and make the cut.

### ⚠ WARNING:

Always cut in a forward direction when pocket cutting. Cutting in the reverse direction could cause the saw to climb up on the workpiece and back toward you.



- Release the trigger and allow the blade to come to a complete stop.
- Lift the saw from the workpiece.
- Clear corners out with a hand saw or sabre saw.

### ⚠ WARNING:

Never tie the lower blade guard in a raised position. Leaving the blade exposed could lead to serious injury.

# OPERATION

## LENGTH OF CUT SCALE

See Figure 20.

The saw is equipped with a length of cut scale on its base. It is parallel with the saw blade and you can use it to measure the distance the blade cuts into the material.

**NOTE:** Six inches is the maximum length of cut that you can measure. Also, it is accurate only when the depth of cut is set at full maximum depth.

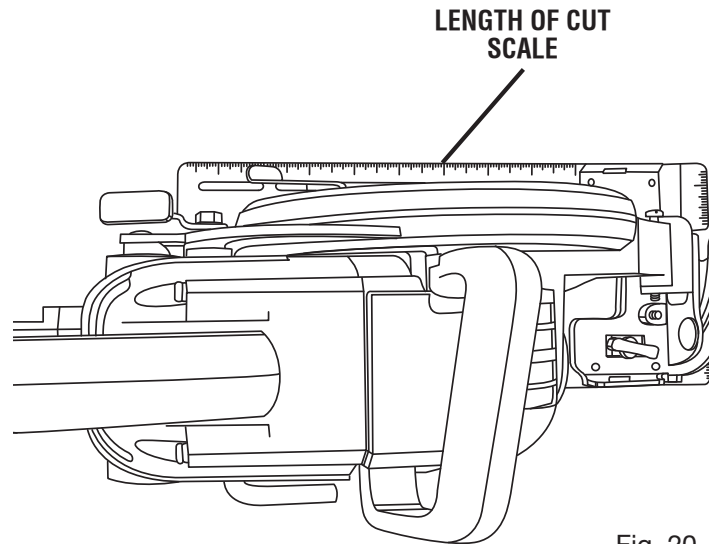


Fig. 20

# ADJUSTMENTS

## ADJUSTING THE LEVER LOCK MECHANISM

See Figure 21.

The lever lock mechanism located at the bevel bracket and at the base of the elevation bracket may be adjusted to the degree of leverage the operator prefers.

- Pull the lever upward until it is fully loosened.
- Gently pry the retaining clip from the cap nut with a small flat blade screwdriver. Save the retaining clip.
- Pull the lever off the cap nut and adjust the lever location.
- Tighten the lever to check for desired tightness.
- If this is the desired tightness, then reinstall the retaining clip on the cap nut, using a flat blade screwdriver to tap it into place.

**NOTE:** Reinstall the retaining clip with the bow up.

- If the lever is not tight enough, repeat the above steps.

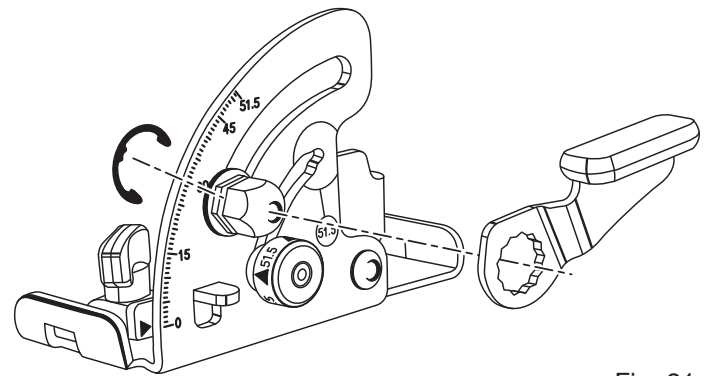


Fig. 21

# MAINTENANCE

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## **⚠ WARNING:**

When servicing use only identical RIDGID® replacement parts. Use of any other parts may create a hazard or cause product damage.

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**Do not** abuse power tools. Abusive practices can damage tool as well as workpiece.

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## **⚠ WARNING:**

The tool should never be connected to a power supply when you are assembling parts, making adjustments, cleaning, performing maintenance, or when the tool is not in use. Disconnecting the tool will prevent accidental starting that could cause serious injury.

---

## **GENERAL**

Use clean cloths to remove dirt, carbon dust, etc.

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## **⚠ WARNING:**

Do not at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc. come in contact with plastic parts. They contain chemicals that can damage, weaken, or destroy plastic.

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Electric tools used on fiberglass material, wallboard, spackling compounds, or plaster are subject to accelerated wear and possible premature failure because the fiberglass chips and grindings are highly abrasive to bearings, brushes, commutators, etc. Consequently, we do not recommend using this tool for extended work on these types of materials. However, if you do work with any of these materials, it is extremely important to clean the tool using compressed air.

---

## **⚠ WARNING:**

Always wear safety goggles or safety glasses with side shields during power tool operation or when blowing dust. If operation is dusty, also wear a dust mask.

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# MAINTENANCE

## LUBRICATION

See Figure 22.

This tool has been properly lubricated and is ready to use. It is recommended that the gears be lubricated only with Mobil SHC 636 Oil.

After extended use, check the oil level, using the dipstick provided.

### CHECKING THE OIL

- Unplug the tool.
- Place the base of the saw on a horizontal surface.
- Remove the oil plug using a 6mm hex wrench.
- Insert the dipstick straight into the tool. Do not force.
- Check the oil level. It should be between the two white marks on the dipstick.
- If the oil level is not above the first white mark, add oil a little at a time until the oil reaches the correct level.
- Return the dipstick to the storage area on the underside of the tool.

### CHANGING THE OIL

- Unplug the tool.
- Place the base of the saw on a horizontal surface.
- Remove the oil plug using a 6mm hex wrench.
- Tip the saw up and let oil drain out into an appropriate oil container.
- Replace the oil using a small funnel (less than 1/4 in. spout). Take care to let air out while putting new oil in to avoid spilling. Fill only with .5 oz. (15cc, or one tablespoon) Mobil SHC 636 Oil.
- Fill the gear case until the oil level is between the two marks on the dipstick. Do not overfill. If the level of oil raises above the second mark on the dipstick while the base is on a level surface, overheating may occur.
- Replace the oil plug with a 6mm hex wrench. Do not overtighten. The O-ring under the head should be compressed slightly. Overtightening will cause the o-ring to unseat and not seal properly.

**NOTE:** With a new saw, change the oil following the first ten hours of use. This will prolong the life of the tool by removing the gear particles from the oil when the gears are breaking in.

## BRUSH REPLACEMENT

See Figure 23.

The tool has externally accessible brush assemblies that should be periodically checked for wear.

- Unplug the tool.
- Remove the brush cap with a torx screwdriver. The brush assembly is spring loaded and will pop out when you remove the brush cap.
- Remove the brush assembly (brush and spring).
- Check for wear. If worn, always replace in pairs. Do not replace one side without replacing the other.

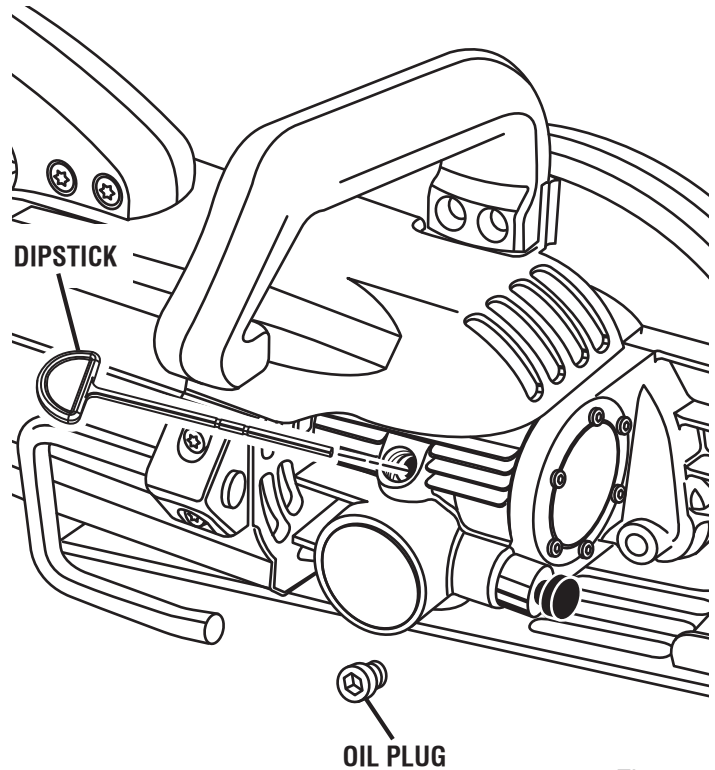


Fig. 22

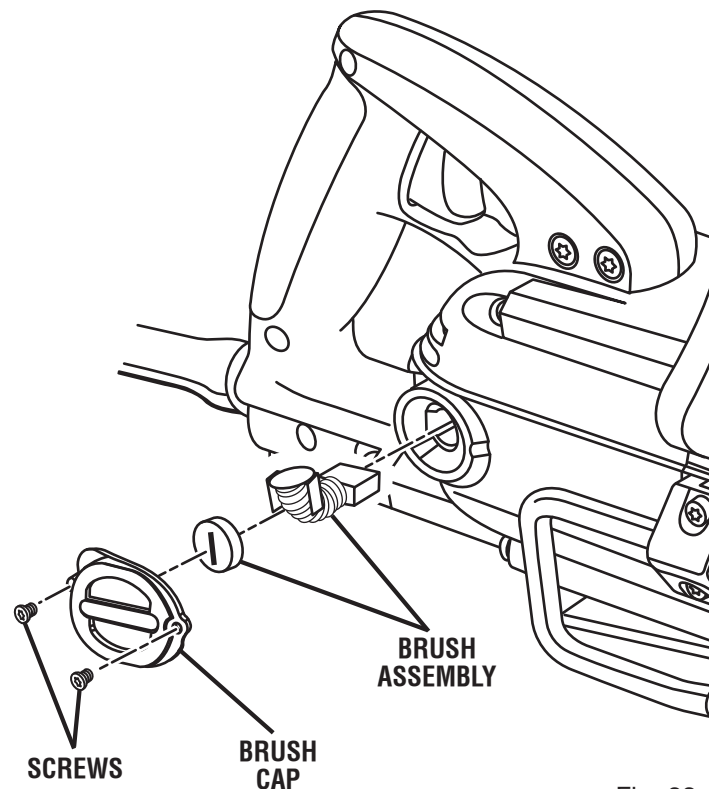


Fig. 23





# WARRANTY

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## RIDGID® HAND HELD AND STATIONARY POWER TOOL 3 YEAR LIMITED SERVICE WARRANTY

Proof of purchase must be presented when requesting warranty service.

Limited to RIDGID® hand held and stationary power tools purchased 2/1/04 and after. This product is manufactured by One World Technologies, Inc. The trademark is licensed from RIDGID, Inc. All warranty communications should be directed to One World Technologies, Inc., attn: RIDGID Hand Held and Stationary Power Tool Technical Service at (toll free) 1-866-539-1710.

### 90-DAY SATISFACTION GUARANTEE POLICY

During the first 90 days after the date of purchase, if you are dissatisfied with the performance of this RIDGID® Hand Held and Stationary Power Tool for any reason you may return the tool to the dealer from which it was purchased for a full refund or exchange. To receive a replacement tool you must present proof of purchase and return all original equipment packaged with the original product. The replacement tool will be covered by the limited warranty for the balance of the 3 YEAR service warranty period.

### WHAT IS COVERED UNDER THE 3 YEAR LIMITED SERVICE WARRANTY

This warranty on RIDGID® Hand Held and Stationary Power Tools covers all defects in workmanship or materials and normal wear items such as brushes, chucks, motors, switches, cords, gears and even cordless batteries in this RIDGID® tool for three years following the purchase date of the tool. Warranties for other RIDGID® products may vary.

### HOW TO OBTAIN SERVICE

To obtain service for this RIDGID® tool you must return it; freight prepaid, or take it in to an authorized service center for RIDGID® branded hand held and stationary power tools. You may obtain the location of the authorized service center nearest you by calling (toll free) 1-866-539-1710 or by logging on to the RIDGID® website at [www.ridgid.com](http://www.ridgid.com). When requesting warranty service, you must present the original dated sales receipt. The authorized service center will repair any faulty workmanship, and either repair or replace any part covered under the warranty, at our option, at no charge to you.

### WHAT IS NOT COVERED

This warranty applies only to the original purchaser at retail and may not be transferred. This warranty only covers defects arising under normal usage and does not cover any malfunction, failure or defect resulting from misuse, abuse, neglect, alteration, modification or repair by other than an authorized service center for RIDGID® branded hand held and stationary power tools. Consumable accessories provided with the tool such as, but not limited to, blades, bits and sand paper are not covered.

**RIDGID, INC. AND ONE WORLD TECHNOLOGIES, INC. MAKE NO WARRANTIES, REPRESENTATIONS OR PROMISES AS TO THE QUALITY OR PERFORMANCE OF ITS POWER TOOLS OTHER THAN THOSE SPECIFICALLY STATED IN THIS WARRANTY.**

### ADDITIONAL LIMITATIONS

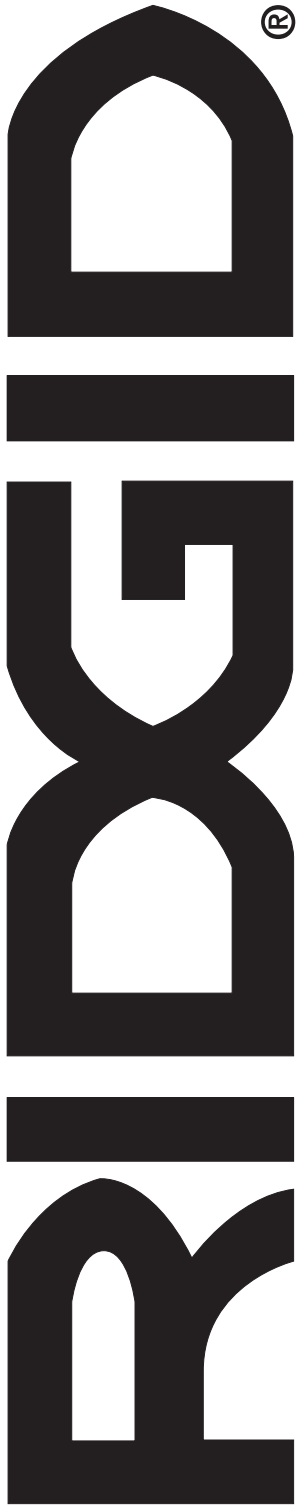
To the extent permitted by applicable law, all implied warranties, including warranties of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, are disclaimed. Any implied warranties, including warranties of merchantability or fitness for a particular purpose, that cannot be disclaimed under state law are limited to three years from the date of purchase. One World Technologies, Inc. and RIDGID, Inc. are not responsible for direct, indirect, incidental or consequential damages. Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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**One World Technologies, Inc.**

P.O. Box 35, Hwy. 8  
Pickens, SC 29671

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# OPERATOR'S MANUAL

## 7-1/4 WORM DRIVE SAW DOUBLE INSULATED

R3210-1

### Customer Service Information:

For parts or service, contact your nearest RIDGID authorized service center. Be sure to provide all relevant information when you call or visit. For the location of the authorized service center nearest you, please call 1-866-539-1710 or visit us online at [www.ridgid.com](http://www.ridgid.com).

The model number of this tool is found on a plate attached to the motor housing. Please record the serial number in the space provided below. When ordering repair parts, always give the following information:

**Model No.** \_\_\_\_\_ R3210-1 \_\_\_\_\_

**Serial No.** \_\_\_\_\_

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